

**ABSTRACT**

Leak and tear resistant grafts for repair and replacement of living animal tissue are disclosed. The grafts, which may be flat or tubular, are formed of interlaced filamentary members and have reinforced attachment regions defined by interlaced filamentary members of higher tensile strength. Higher strength is provided by use of high strength material, increased denier or number of plies of the filamentary members. High strength members inhibit propagation of tears which occur in the graft when the attachment region is pierced by sutures or staples. Filamentary members formed of textured, elastic or heat shrinkable yarns interlaced in the graft inhibit leakage.

M:\DLarsen\Prodesco\24463Ausa\24463A.APL